Fred Heiman P.E.

ANACONDA Minerals Company
555 Seventeenth Street
Denver, Colorado 80202
Telephone 303 293 4000

November 1, 1983

Michael Barden, Intern
Planning and Standards Section
Water Quality Control Division
4210 East 11th Avenue
Denver, Colorado 80220

Anaconda Minerals - Rico Project
CDPS Permit No. CO-0029793
Industrial Discharge Questionnaire

Dear Mr. Barden:

As I discussed on the phone, the Rico property was acquired by Anaconda for exploration purposes and has never been put into operation since acquisition. I have completed the questionnaire where applicable.

The costs shown are principally for stabilization of tailings and settling pond dikes, for water quality surveys, and associated engineering and minewater treatability studies. Very little capital equipment is included.

The 1983 estimated costs are for installation of the treatment facility and continuation of our Dolores River monitoring program.

The SIC No. for Lead and Zinc Mining is 1031 but I do not think it is applicable to non-operating properties.

If any further information is needed, please advise.

Very truly yours,

John R. Whyte
Environmental Services Manager

JRW:nc

NOV. 9 RECD

xc: Sandy Squire, WQCD

ECONOMIC IMPACTS OF WATER QUALITY CONTROL

INDUSTRIAL DISCHARGE QUESTIONNAIRE

1. What are the total number of employees engaged in the operation at this site?

   1 (one) Anaconda acquired the Rico property in 1980 as an exploration project. No operations have taken place since its acquisition.

2. Please list the costs which were incurred at this operation (indicating the year). Include all pollution-related costs as appropriate. Total costs should represent the fully allocated costs of production before federal income tax. Definitions are provided below:

   Labor: Payroll for all labor directly connected with production, including skilled, unskilled, supervisory, executive, etc.

   Materials: Include all raw materials, maintenance and operating supplies used in production and any other materials used in direct connection with production.

   Energy: Include purchased fuels used for heat, power, and generating electricity. If you include fuels produced and consumed in the establishment, please so identify. Cost is delivered cost (i.e., paid or payable after discounts and including freight or other direct charges).

   Fixed Costs: General production related fixed charges, including: installed capital, insurance, local property taxes, building and machinery rent.

   If possible, separate out depreciation charges for all installed capital at this site.

   A. Direct production costs (non-capitalized):

      Labor N/A

      Cost of materials _____

      Cost of energy _____

   B. Fixed charges:

      Property tax, insurance, etc. _____

      Depreciation _____

3. Please list the quantities and costs of energy consumed for the latest year figures are available:

	$/Unit	Quantities Per Year	Annual Costs
Electric (kwh)	N/A		
Gas ($ft.^3$)	N/A		
Coal (tons)	N/A		
Liquid fuel (gal)	N/A		

4. Please indicate historical expeditures for water pollution abatement. Include capital investment and O & M costs. If possible, allocate O & M costs to labor, materials, and energy consumed (as defined in question 3.)

A. Total capital expenditures: $ 1,606,000*
Total capital expenditure and O & M costs should include water pollution abatement expenditures made to comply with NPDES permit requirements from 1972 to present.

B. Direct O & M costs. Use your best judgment in allocating O & M costs. If these costs are impossible to estimate, please indicate. DO NOT include expenditures for other pollution abatement requirements (i.e., air, solid wastes, OSHA, tailings and reclamation, etc.)

Labor _____
Materials _____
Energy _____

All activities and studies are managed by Denver staff. Project is not back charged and costs are not isolated.

5. Do you anticipate any capital expenditures for current or proposed regulations for water quality control within the near future? If so, please briefly describe type of control and estimated amount and year of expenditure. Capital expenditures for current or proposed regulations refer only to regulations that are either currently in effect or have been proposed formally by federal or state governments. It does not include regulations that are under development or consideration.

1984 • Completion of Treatment Facility - $200,000

• Projected Operating Costs - $100,000/year

*See outline attached.

6. From your experience, what has been the controlling variable in your level of treatment requirements (i.e., chemical constituents such as zinc, lead, mercury, etc., and/or physical constituents such as classification of the flow and chemistry of the receiving waters).

N/A

7. If you discharge process wastewater to a publicly-owned treatment works, are your sewer charges based upon:

   A. Water userage? N/A

   B. Wastewater concentration?

      ____ BOD ____ COD ____ TSS

   C. Wastewater volume? _____

   D. Other basin (please specify):

      _____

8. If you discharge process wastewater to a publicy-owned treatment works, please provide the following cost information:

   A. Annual user charges N/A

   B. Annual cost recovery charge _____

   C. Pretreatment system capital cost _____

   D. Pretreatment system annual operating cost

      _____

COLORADO DEPARTMENT OF HEALTH
QUESTIONNAIRE
October 1983

Rico Capital Costs to Date

Tailings Ponds Stabilization	$200,000
Dolores River and Silver Creek Stabilization	$328,000
Treatability and Water Treatment Plant Design	$638,000
Water Quality Studies	$240,000
Water Treatment Plant Construction (1983)	$100,000
Water Quality Studies and Monitoring (1983)	$100,000
	$1,606,000

	Cost by Year
1980	$ 25,000
1981	$ 836,000
1982	$ 544,000
1983	$ 200,000
TOTAL	$1,606,000

ANACONDA Minerals Company
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November 2, 1983

[redacted]
Engineering Technician
Permits and Enforcement Section
Water Quality Control Division
Colorado Department of Health
4210 East 11th Avenue
Denver, Colorado 80220

Subject: **CDPS - CO-0029793 Dolores County NOV's dated August 17, 1983 and October 6, 1983**

Dear Ms. Squire:

We have reviewed the subject Notices of Violation (NOV's), and current monitoring data. Attached are summary sheets which list the analytical results used for the DMR's. Other labs were used to analyze splits of the samples; these analyses are also shown. This was done after the June analyses indicated that the permit limits had been exceeded. All DMR data has been generated by the same lab we have been using essentially since acquisition of the property. Although there are interesting comparisons in some cases, no consistent analytical differences are indicated.

As you know, the existing treatment system at Rico consists only of settling ponds and thus can control only suspended material. No violations of the Total Suspended Solids (TSS) limitations occurred. Zinc in the discharge is almost totally in dissolved form and therefore cannot be controlled by our present facilities. As to the other parameters, i.e. Copper and Lead, these characteristically vary with the TSS. The original NOV issued by the Department in 1980, was amended to increase the zinc limitation to its present limits i.e. 30 day average 2.5 mg/l and 5.0 mg/l maximum. No interim adjustment was made in the Lead and Copper limitation. If the lead and copper were increased by the same factor as the zinc, the only permit exceedence, other than zinc, during June, July and August would be the 0.55 mg/l copper analysis which was reported in July.

The September and October monitoring data show permit limitation exceedences only for Lead. We have not generally had a problem meeting the lead limitation and as you can see, the September check samples indicate a lead value of 0.01 mg/l of lead in both cases. The 0.065 lead in the October 3, 1983 sample was, however, confirmed by the check sample. The October 18, 1983 sample

returned to a level which meets the permit limitations for lead. If the lead limitation was increased as previously described, there would be no permit exceedences in September or October.

We are continuing to take splits of our water quality samples in the interest of assuring accurate monitoring data and for developing a baseline for proper evaluation of the treatment plant.

Very truly yours,

John R. Whyte
Environmental Services Manager

JRW:nc

RICO DMR SUMMARY

July thru October 1983

Comparison with split samples run by other laboratories.

Sampling Date	July 18, 1983 (1)	Check Analysis (2)
Total Suspended Solids (mg/l)	3.25	2.8
Total Dissolved Solids (mg/l)	1,020	1,014
Total Cadmium (mg/l)	0.023	0.031
Total Copper (mg/l)	0.033	0.034
Total Zinc (mg/l)	5.90	5.09
Total Lead (mg/l)	0.010	< 0.01
Total Mercury (mg/l)	0.00008	<0.0002
Total Silver (mg/l)	<0.0004	0.001

Sampling Date	August 1, 1983 (1)	Check Analysis (2)
Total Suspended Solids (mg/l)	5.25	4
Total Dissolved Solids (mg/l)	984	1016
Total Cadmium (mg/l)	0.018	0.03
Total Copper (mg/l)	0.11	0.15
Total Zinc (mg/l)	3.38	4.3
Total Lead (mg/l)	0.008	0.01
Total Mercury (mg/l)	0.0003	<0.0003
Total Silver (mg/l)	0.003	<0.01

Sampling Date	August 15, 1983 (1)	Check Analysis (2)
Total Suspended Solids (mg/l)	0.5	1.4
Total Dissolved Solids (mg/l)	916	976
Total Cadmium (mg/l)	0.016	0.019
Total Copper (mg/l)	0.021	0.015
Total Zinc (mg/l)	4.78	3.47
Total Lead (mg/l)	0.007	0.01
Total Mercury (mg/l)	0.00004	<0.0002
Total Silver (mg/l)	0.003	0.001

Sampling Date	September 7, 1983 (1)	Check Analysis (2)
Total Suspended Solids (mg/l)	0.25	4
Total Dissolved Solids (mg/l)	994	1020
Total Cadmium (mg/l)	0.012	0.01
Total Copper (mg/l)	0.026	0.24
Total Zinc (mg/l)	2.7	2.8
Total Lead (mg/l)	0.016	<0.01
Total Mercury (mg/l)	0.00004	<0.0003
Total Silver (mg/l)	<0.0004	<0.01

RICO DMR SUMMARY (Continued)

Sampling Date	September 19, 1983 (1)	Check Analysis (2)
Total Suspended Solids (mg/l)	1.75	1.8
Total Dissolved Solids (mg/l)	970	990
Total Cadmium (mg/l)	0.0093	0.012
Total Copper (mg/l)	0.014	0.015
Total Zinc (mg/l)	1.86	2.36
Total Lead (mg/l)	0.025	<0.01
Total Mercury (mg/l)	<0.00004	0.0025
Total Silver (mg/l)	0.0021	0.001

Sampling Date	October 3, 1983 (1)	Check Analysis (2)
Total Suspended Solids (mg/l)	2.5	--
Total Dissolved Solids (mg/l)	928	--
Total Cadmium (mg/l)	0.0082	0.018
Total Copper (mg/l)	0.015	0.015
Total Zinc (mg/l)	1.95	2.01
Total Lead (mg/l)	0.065	0.054
Total Mercury (mg/l)	<0.00002	<0.0005
Total Silver (mg/l)	0.0014	0.008

Sampling Date	October 18, 1983 (1)	Check Analysis (2)
Total Suspended Solids (mg/l)	0.75	2.4
Total Dissolved Solids (mg/l)	1006	1024
Total Cadmium (mg/l)	0.002	0.009
Total Copper (mg/l)	0.021	0.009
Total Zinc (mg/l)	1.56	1.66
Total Lead (mg/l)	0.007	<0.01
Total Mercury (mg/l)	0.0002	<0.0002
Total Silver (mg/l)	0.008	0.001

(1) Used for DMR

(2) Split sample - different lab